

MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT
TITLE V OPERATING PERMIT ~~TV66-01~~TV-0000007

24580 Silver Cloud Court
Monterey, CA 93940
Telephone: (831) 647-9411

ISSUED TO:

~~AERA-Aera~~ Energy LLC
P.O. Box 11164
Bakersfield, CA 93389-1164

PLANT SITE LOCATION:

66893 Sargent Canyon Road
San Ardo, CA 93450

ISSUED BY:

Richard Stedman, Air Pollution Control Officer

November 1, 2012 To Be Determined
Proposed Effective Date

Nature of Business: Crude Oil Production

SIC Codes: 1311 - Crude Petroleum and Natural Gas

RESPONSIBLE OFFICIAL:

Name: ~~Mr. R. S. Corby~~ W. J. Dittman
Title: Vice President Operations
Phone: (661) 665-~~54173141~~

ALTERNATIVE RESPONSIBLE OFFICIALS:

Name: ~~Mr. K. A. Peck~~ J. M. Ohman
Title: Operations Manager

Name: Mr. M. L. Du Frene
Title: Process Supervisor

FACILITY CONTACT PERSON:

Name: Mr. Tim Parcel
Title: Environmental Advisor
Phone: (831) 385-7704 or (559) 935-7418

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FACILITY DESCRIPTION [tc \11 "FACILITY DESCRIPTION]

~~AERA~~ Aera Energy LLC operates a crude oil production facility in the San Ardo Field in Southern Monterey County. ~~AERA's~~ Aera's operation includes both primary and tertiary crude oil production wells.

These production wells are supported by several categories of equipment necessary to recover heavy crude oil from the production zones. These categories include: 1) steam generators; 2) a cogeneration plant; 3) produced crude oil storage tanks; 4) oil and water separation equipment including heater treaters, free water knockout vessels, induced gas flotation units, skim tanks, produced water tanks, and sand basins; 5) well head casing vent vapor collection system including SulFerox Desulfurization Unit; 6) emergency flare; 7) gasoline dispensing; and 8) crude oil drilling/workover rigs.

~~AERA's~~ Aera's facility is considered a federal Major Source and subject to the Title V permitting program due to the potential to emit oxides of nitrogen (NO_x) and sulfur dioxide (SO₂).

EQUIPMENT DESCRIPTION[tc \11 "EQUIPMENT DESCRIPTION]

OIL PRODUCTION FACILITY CONSISTING OF:

1. Oil Recovery And Steam Injection Wells.
2. Drilling Rigs With Diesel Fired Internal Combustion Engines.
3. Cogeneration Facilities, ~~Three~~ Two Units (Cogen A, ~~& B & C~~) Each Consisting Of:
 - a) ~~Solar Centaur T-4501 Gas Turbine, Fired On Natural Gas And/Or Produced Gas Treated By The Desulfurization Plant, Rated At 61.5 MMBtu/Hr Maximum Heat Input And 3.2 MW Electrical Output, Evaporative Cooler On Turbine Inlet, Water Injection For NO_x Control (0.5 Lbm H₂O/Lbm Fuel).~~
 - b) ~~Heat Recovery Steam Generator With Duct Burner Fired On Natural Gas And/Or Produced Gas Treated By The Desulfurization Plant, 38.7 MMBtu/Hr Maximum Heat Input, Steam Output Rating: 57,180 Lbs/Hr @ 1054 psia and 551^NF.~~
 - c) NO_x Abatement System, Zeolite Catalyst And Ammonia Injection System.
4. ~~One Steam Generator (Identification Number 30-13), Fired On Natural Gas And/Or Produced Gas Treated By The Desulfurization Plant, 62.5 MMBtu/Hr Maximum Heat Input.~~
5. ~~Nine Steam Generators (Identification Numbers 22-1 Through 22-4, And 30-1 Through 30-5) (Identification Numbers 12-2 Through 12-5, 12-7 Through 12-10, And 30-1), Fired On Natural Gas And/Or Produced Gas Treated By The Desulfurization Plant, 85 MMBtu/Hr Maximum Heat Input.~~

6. Two Steam Generators With Packed Tower Scrubber System (Identification Numbers 30-6 And 30-10A), Fired On Natural Gas And/Or Produced Gas ~~Treated By The Desulfurization Plant And/Or Produced Gas Which Bypasses The Desulfurization Plant~~, 62.5 MMBtu/Hr Maximum Heat Input.
7. One Steam Generator With Three Tray Scrubber System (Identification Number 30-9), Fired On Natural Gas And/Or Produced Gas ~~Treated By The Desulfurization Plant And/Or Produced Gas Which Bypasses The Desulfurization Plant~~, 62.5 MMBtu/Hr Maximum Heat Input.
8. Casing Gas Processing Plant ~~Including SulFerox Desulfurization Unit~~ With A Design Capacity Of 10.0 MM Scf/Day.
9. ~~Five~~ Crude Oil Heater Treaters (Identification Numbers CTB-1 ~~Through CTB-5~~), Fired On Natural Gas, And/Or Produced Gas ~~Treated By The Desulfurization Plant With Number 6 Fuel Oil Standby~~. Each Unit Equipped With Two Burners, Each Burner Has A Maximum Heat Input Rating Of ~~6.3~~ 4.2 MMBtu/Hr. ~~These Five Crude Oil Heater Treaters Will Be Replaced By Seven New Un-Fired Free Water Knockout Vessels.~~
10. ~~Three~~ Crude Oil Heater Treaters (Identification Numbers CTB-2, CTB-3 And CTB-4), Fired On Natural Gas, Each Unit Equipped With Two Burners, Each Burner Has A Maximum Heat Input Rating Of 2.4 MMBtu/Hr.
- ~~10.11~~ ~~Two-Three~~ Crude Oil Heater Treaters (Identification Numbers CTB-5, CTB-7 And CTB-8), Fired On Natural Gas And/Or Produced Gas ~~Treated By The Desulfurization Plant~~. Each Unit Equipped With Two Burners, Each Burner Has A Maximum Heat Input Rating Of 6.3 MMBtu/Hr. ~~These Two Crude Oil Heater Treaters Will Be Replaced By Three New Un-Fired Heater Treaters.~~
- ~~11.12~~ Recovery Gas Treatment Plant Including Sulfatreat Vessels And Enclosed Ground Flare. ~~This Equipment Will Be Removed And Replaced By A New 12.0 MM Scf/Day Emergency Use Only Utility Flare.~~
- ~~12.13~~ Oil Treating Facility Including Truck Loadout.
- ~~13.14~~ Waste Water Facility Including Water Reclamation Plant. ~~The Waste Water Facility Will Be Replaced And Incorporated Into The New Central Treatment Complex And The Water Reclamation Plant Will Be Replace With New Equipment.~~
- ~~14.15~~ Ancillary Equipment:
 - Gasoline Dispensing Facility.
 - Laboratory Fume Hood.

PERMIT SHIELD[tc \11 "PERMIT SHIELD]

Compliance with the conditions contained on this Title V Permit shall be deemed compliance with the following applicable requirements as of the date of issuance of this permit based upon the criteria following each applicable requirement:

40 CFR Part 60, Subpart A - New Source Performance Standards, General Provisions

This facility is subject to the requirements of this part because they are subject to 40 CFR Part 60, Subparts Dc and Gg. In their Title V application, the source has requested that the requirements of Subpart A be subsumed under the NSR permit requirements.

The District agrees, and asserts that compliance with the conditions on the Title V permit shall be considered compliance with the monitoring, record keeping, and reporting requirements contained in 40 CFR Parts 60.7, 60.8 (with the exception of 60.8(b)), 60.11 (with the exception of 60.11(b) and 60.11(e)), and 60.13 (with the exception of 60.13(a), 60.13(d)(2), 60.13 (g), and 60.13(i)).

40 CFR Part 60, Subpart Dc - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

All equipment with the exception of the Cogeneration facilities, the Natural Gas Fired Steam Generators, and the Steam Generators with Scrubber Systems predate this requirement. Although the equipment listed above is subject to the requirements of this part based upon the definition of a "steam generating unit", no requirements (SO_x or PM emission limits) are imposed due to the fact that no heat input is provided by coal, oil, or wood.

40 CFR Part 60, Subpart Gg - Standards of Performance for Stationary Gas Turbines

The cogeneration facilities at this facility are subject to the requirements of this NSPS. In addition to the post combustion control of SCR, the turbine utilizes water injection to control NO_x formation.

The NO_x emission factor from Section 60.332(a)(2) would be 150 ppmvd. This 150 ppmvd limit far exceeds the NSR-NSR permit limit of 3.8 lbs NO_x/hr which equates to 17.6 ppmv $\{(3.8 \text{ lbs NO}_x/\text{MMBtu}) * ((\text{MM lbmoles air})/(46.0 \text{ lbmole NO}_2)) * ((379 \text{ Ft}^3 \text{ Air})/(\text{lbmole air}))/((29,700 \text{ SDCFM}) * (60 \text{ M/Hr})) = 17.6 \text{ ppmv}\}$ $[(3.8 \text{ lbs NO}_x/\text{Hr}) (1\text{E}06) (379 \text{ ft}^3/\text{lbmole}) (\text{lbmole}/46 \text{ lb NO}) (\text{hr}/60 \text{ min}) (\text{min}/29,700 \text{ ft}^3) = 17.6 \text{ ppmv}]$ established by District Rule 207. Therefore, the NO_x limit from the NSPS will be subsumed under the NSR permit requirements that will be included on the Title V permit.

The SO₂ limit from Section 60.333 would be 150 ppmv. Compliance with this limit is assumed due to these units being fired exclusively on natural gas and based upon the SO₂ limit contained in the NSR permits of 0.1 lb/hr per unit. The SO₂ concentration at this permitted emission level would be 0.33 ppmv $\{(0.1 \text{ lbs SO}_2/\text{hr}) * ((\text{MM lbmoles air})/(64.1 \text{ lbmole SO}_2)) * ((379 \text{ Ft}^3 \text{ Air})/(\text{lbmole air}))/((29,700 \text{ SDCFM}) * (60 \text{ M/Hr})) = 0.33 \text{ ppmv}\}$ $[(0.1 \text{ lbs SO}_2/\text{Hr}) (1\text{E}06) (379 \text{ ft}^3/\text{lbmole}) (\text{lbmole}/64.1 \text{ lb SO}_2) (\text{hr}/60 \text{ min}) (\text{min}/29,700 \text{ ft}^3) = 0.33 \text{ ppmv}]$. This value is well below the 150 ppmv SO₂ allowed for in the NSPS. Therefore, the SO₂ emission standard from this NSPS will be subsumed under the NSR permit requirement that will be included on the Title V permit.

The testing and monitoring requirements contained in Sections 60.334 and 60.335 will be subsumed under the testing and monitoring requirements established under the NSR permits that will be included on the Title V permit. This will include the annual emissions testing requirement, and the requirement to monitor operations with the use of CEMs.

FEDERALLY ENFORCEABLE EMISSION LIMITS AND STANDARDS[tc \11 "FEDERALLY

ENFORCEABLE EMISSION LIMITS AND STANDARDS]

1. The pollutant mass emission rates in the exhaust discharged to the atmosphere from the heat recovery steam generator of Cogeneration Units A and B shall not exceed the following limits [District Rule 207; District Rule 403 limit of 38.2 lbs PM₁₀/hr; District Rule 404 NO_x limit of 140 lbs/hr and 350 ppm, and SO₂ limit of 2000 ppmv; 40 CFR Part 60, Subpart GG NO_x limit of 150 ppm and SO₂ limit of 150 ppm]:

<u>Pollutant</u>	<u>Lbs/Hour</u>	<u>Lbs/Day</u>
Oxides of Nitrogen (NO _x)	3.8	90.7
Carbon Monoxide (CO)	7.0	168.8
Ammonia (NH ₃)	0.4	33.5
Particulate Matter <10 microns (PM ₁₀)	0.81	19.3
Volatile Organic Compounds (VOC)	1.0	24.1
Sulfur Dioxide (SO ₂)	0.1	1.0

These limits shall not apply during startup, which is not to exceed two hours in length, or shut down, which is not to exceed one hour in length. SCR catalytic controls, water injection and good operating practices shall be used to the fullest extent during startup to minimize pollutant emissions.

2. ~~The NO_x emission from the cogeneration units shall be controlled at all times by water injection and operation of the selective catalytic reduction (SCR) system except during startup and shutdown. To ensure proper operation the water injection and SCR control systems, the facility must maintain operate the systems with the following parameters: [40 CFR 60, Subpart GG]~~

<u>Parameter</u>	<u>Minimum Value:</u>	<u>Maximum Value:</u>	<u>Reporting</u>
<u>Water/Fuel Ratio</u>	<u>0.5 lb H₂O/lb Fuel</u>	<u>0.9 lb H₂O/lb Fuel</u>	<u>Average hourly</u>
<u>Catalyst Temperature</u>	<u>450°F</u>	<u>900°F</u>	<u>Average hourly</u>
<u>NH₃ Injection Rate</u>	<u>900 Liter/Hour</u>	<u>1,800 Liter/Hour</u>	<u>Average hourly</u>

~~These limits shall not apply during startup, which is not to exceed two hours in length, or shut down, which is not to exceed one hour in length. SCR catalytic controls, water injection and good operating practices shall be used to the fullest extent during startup to minimize pollutant emissions.~~

2. ~~Oxides of nitrogen, as NO₂, in the exhaust discharged to the atmosphere from the heat recovery steam generator of Cogeneration Unit C shall not exceed 9 ppmvd, calculated as a clock hour average at 15 percent O₂, dry. [District Rule 207; 40 CFR Part 60, Subpart GG NO_x limit of 150 ppm]~~
3. ~~The pollutant mass emission rates in the exhaust discharged to the atmosphere from the heat recovery steam generator of Cogeneration Unit C shall not exceed the following limits [District Rule 207; District Rule 403 limit of 38.2 lbs PM₁₀/hr; District Rule 404 NO_x limit of 140 lbs/hr and 350 ppm, and SO₂ limit of 2000 ppmv; 40 CFR Part 60, Subpart GG NO_x limit of 150 ppm and SO₂ limit of 150 ppm]:~~

<u>Pollutant</u>	<u>Lbs/Hour</u>	<u>Lbs/Day</u>
Oxides of Nitrogen (NO _x)	3.3	79.8
Carbon Monoxide (CO)	7.0	168.8
Ammonia (NH ₃)	1.4	33.5
Particulate Matter <10 microns (PM ₁₀)	0.81	19.3
Volatile Organic Compounds (VOC)	1.0	24.1

Sulfur Dioxide (SO₂) 0.1 1.0

~~These limits shall not apply during startup, which is not to exceed two hours in length, or shut down, which is not to exceed one hour in length. SCR catalytic controls, water injection and good operating practices shall be used to the fullest extent during startup to minimize pollutant emissions.~~

- 4.3. The pollutant mass emission rates in the exhaust discharged to the atmosphere from Steam Generator 30-13 shall not exceed the following limits [District Rule 207; District Rule 403 limit of 0.82 lbs PM₁₀/hr; District Rule 404 NO_x limit of 140 lbs/hr and SO₂ limit of 2000 ppmv]:

Pollutant	Lbs/Hour	Lbs/Day
Oxides of Nitrogen (NO _x)	3.1	65.0
Carbon Monoxide (CO)	0.21	5.0
Particulate Matter <10 microns (PM ₁₀)	0.29	7.0
Volatile Organic Compounds (VOC)	0.04	1.0
Sulfur Dioxide (SO ₂)	0.03	0.8

- 5.4. The emissions of oxides of nitrogen, as NO₂, in the exhaust discharged to the atmosphere from Steam Generator 30-13 shall not exceed 40 ppmvd, calculated at 3 percent O₂, dry. [District Rule 207; District Rule 404 NO_x limit of 350 ppm]

- 6.5. The pollutant mass emission rates in the exhaust discharged to the atmosphere from Steam Generators 22-1 through 22-4 and 30-1 through 30-5 12-2, 12-3, 12-4, 12-5, 12-7, 12-8, 12-9, 12-10 and 30-1 shall not exceed the following limits [District Rule 207; District Rule 403 limit of 0.82 lbs PM₁₀/hr; District Rule 404 NO_x limit of 140 lbs/hr and SO₂ limit of 2000 ppmv]:

Pollutant	Lbs/Hour	Lbs/Day
Oxides of Nitrogen (NO _x)	0.93	22.3
Carbon Monoxide (CO)	2.51	60.4
Particulate Matter <10 microns (PM ₁₀)	0.65	15.5
Volatile Organic Compounds (VOC)	0.08	1.9
Sulfur Dioxide (SO ₂)	0.18	4.4

- 7.6. The emissions of oxides of nitrogen, as NO₂, in the exhaust discharged to the atmosphere from Steam Generators 22-1 through 22-4 and 30-1 through 30-5 12-2, 12-3, 12-4, 12-5, 12-7, 12-8, 12-9, 12-10 and 30-1 shall not exceed 9 ppmvd, calculated at 3 percent O₂, dry. [District Rule 207]

- 8.7. The emissions of carbon monoxide in the exhaust discharged to the atmosphere from Steam Generators 22-1 through 22-4 and 30-1 through 30-5 12-2, 12-3, 12-4, 12-5, 12-7, 12-8, 12-9, 12-10 and 30-1 shall not exceed 40 ppmvd, calculated at 3 percent O₂, dry. [District Rule 207]

- 9.8. The combined pollutant mass emission rate for Steam Generators 30-6 and 30-10A shall not exceed the following limits [District Rule 207; District Rule 403 limit of 11.6 lbs PM₁₀/hr; District Rule 404 NO_x limit of 140 lbs/hr and 350 ppm, and SO₂ limit of 2000 ppmv]:

Pollutant	Lbs/Hour	Lbs/Day
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Sulfur Dioxide (SO ₂)	19.00	456.0
Oxides of Nitrogen (NO _x)	12.50	300.0
Carbon Monoxide (CO)	0.16	4.0
Particulate Matter <10 microns (PM ₁₀)	11.00	264.0
Volatile Organic Compounds (VOC)	9.05	217.2

~~10.9.~~ The pollutant mass emission rate for Steam Generator 30-9 shall not exceed the following limits [District Rule 207; District Rule 403 limit of 11.6 lbs PM₁₀/hr; District Rule 404 NO_x limit of 140 lbs/hr and 350 ppm, and SO₂ limit of 2000 ppmv]:

<u>Pollutant</u>	<u>Lbs/Hour</u>	<u>Lbs/Day</u>
Sulfur Dioxide (SO ₂)	6.33	152.0
Oxides of Nitrogen (NO _x)	6.25	150.0
Carbon Monoxide (CO)	0.08	2.0
Particulate Matter <10 microns (PM ₁₀)	0.50	12.0
Volatile Organic Compounds (VOC)	2.14	51.4

~~11.~~ Total produced gas which bypasses the desulfurization plant combusted in steam generator 30-9 shall not exceed 1.0 MMCFD. [District Rule 207]

~~12.10.~~ Total produced gas which bypasses the desulfurization plant combusted in steam generators 30-6 and 30-10A shall not exceed 1.5 MMCFD for each unit, and shall not exceed 2.8 MMCFD for both units combined. [District Rule 207]

~~13.11.~~ The scrubber effluent water pH shall be maintained at 6.6 or higher. [District Rule 207]

~~14.12.~~ The minimum scrubber water flow rate for the scrubber serving Steam Generators 30-6 and 30-10A shall be 700 gallons per minute. [District Rule 207]

~~15.13.~~ The minimum scrubber water flow rate for Steam Generator 30-9 shall be 200 gallons per minute. [District Rule 207]

~~16.14.~~ The cogeneration facilities and Steam Generators ~~22-1 through 22-4, 30-1 through 30-5 and 30-13~~ 12-2, 12-3, 12-4, 12-5, 12-7, 12-8, 12-9, 12-10, 30-1 shall only be fired on natural gas or treated produced gas discharged from the SulFerox Desulfurization Unit. [District Rule 207]

~~17.~~ The H₂S concentration in the treated produced gas discharged from the SulFerox Desulfurization Unit shall not exceed 0.00152 pounds of H₂S per 1,000 cubic feet of gas (1 grain/100 SCF). [District Rule 207]

~~18.~~ No produced gas shall bypass the SulFerox Desulfurization Unit unless it is routed to steam generators with scrubbers in full operation or to the SulfaTreat system prior to incineration. [District Rule 207]

~~19.15~~ The heat input rate to the Recovery Gas Treatment Plant flare shall not exceed 24.0 MMBtu/Hr. [District Rule 207]

~~20.16~~ Emissions from the Recovery Gas Treatment flare shall not exceed the following limits: [District Rule 207]

<u>Pollutant</u>	<u>Emission Level</u>
NO _x	0.133 lbs/MMBtu
CO	0.37 lbs/MMBtu
VOC	0.0648 lbs/MMBtu
SO ₂	0.2% by volume (2,000 ppmv)

~~21.17~~ The Recovery Gas Treatment flare combustion temperature shall be maintained at a minimum of 1400° F within 30 minutes of start-up. [District Rule 207]

~~22.18~~ The Recovery Gas Treatment Plant's Sulfatreat system shall have a minimum sulfur removal efficiency of 97%. [District Rule 207]

~~23.19~~ Treated produced gas exiting the Sulfatreat system shall have an H₂S concentration that does not exceed 900 ppm. [District Rule 207]

~~24.20~~ When the Recovery Gas Treatment Plant is operational, Steam Generators 30-6 and 30-10A and their associated scrubber shall not be operational. [District Rule 207]

~~25.~~ The Utility Flare shall only be operated during emergency upset conditions. [District Rule 207]

~~26.21~~ Each of the cogeneration facilities shall undergo no more than one cold startup per day. [District Rule 207]

~~27.22~~ ~~AERA-Aera~~ Energy LLC shall maintain a turbine startup protocol for both hot and cold startup, which details the procedures that will be used to minimize the pollutant emissions, and shall amend this protocol based on operating experience. [District Rule 207]

~~28.23~~ Operation of the cogeneration facilities and all steam generators must be conducted in compliance with all data and specifications submitted in the permit applications to the ~~MBUAPCDDistrict~~. [District Rule 207]

~~29.24~~ Pollution Control equipment must be properly maintained and kept in good operating condition. [District Rule 207]

~~30.~~ The steam generators shall not be fired on produced gas which bypasses the Desulfurization Plant gas unless their specific air pollution control equipment is in full use. [District Rule 207]

- ~~31.25.~~ AERAcra Energy LLC shall cause to be operated an ambient air monitoring station at a site approved by the District in Southern Monterey County, for PM₁₀, O₃, and standard meteorological parameters on a continuous basis, in accordance with EPA requirements contained in 40 CFR Part 58, and as deemed necessary in accordance with the Air Resources Board guidelines. The air monitoring station instrumentations shall be compatible with the District's daily data retrieval polling methods. [District Rule 207]
- ~~32.26.~~ The operation of the air monitoring station shall continue for the life of the project or until the Air Pollution Control Officer determines that good cause exists to discontinue monitoring. Good cause includes adequate technical justification submitted by the permittee that successfully proves that the continuation of all or part of the monitoring requirement is no longer necessary. [District Rule 207]
- ~~33.27.~~ No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three (3) minutes in any one (1) hour which is as dark or darker than Ringelmann 1 or equivalent 20% opacity. [District Rule 400]
- ~~34.28.~~ Particulate matter shall not exceed 0.15 grains per standard dry cubic foot in any exhaust stream. [District Rule 403]
- ~~35.29.~~ Sulfur compounds calculated as sulfur dioxide (SO₂) shall not exceed 0.2 percent by volume in any exhaust stream. [District Rule 404]
- ~~36.30.~~ Oxides of Nitrogen, calculated as nitrogen dioxide (NO₂), shall not exceed 140 lbs/hr in any exhaust stream. [District Rule 404]
- ~~37.~~ Oxides of Nitrogen, calculated as nitrogen dioxide (NO₂), from all gaseous fuel fired equipment shall not exceed 350 ppmv, calculated at 3 percent O₂, dry. [District Rule 404]
- ~~38.31.~~ The sulfur content on any fuel oil used at the facility shall not exceed 0.5 percent by weight. [District Rule 412]
- ~~39.32.~~ The sulfur content on any gaseous fuel used at the facility shall not contain sulfur compounds, calculated as hydrogen sulfide at standard conditions, in excess of 50 grains per 100 cubic feet. [District Rule 412]
- This condition does not apply to produced gas which bypasses the desulfurization plant and is combusted in the steam generators with scrubbers. [District Rule 413]
- ~~40.33.~~ During maintenance periods, all produced gas must be vented either to the steam generators for incineration or to an alternate approved control system. [District Rule 413]
- ~~41.34.~~ No more than 40 pounds per day of Volatile Organic Compounds shall be discharged from any permit unit

using or applying any solvent. [District Rule 416 Adopted 1/17/01]

~~42.35.~~ ~~AERA-Aera~~ Energy LLC shall operate the storage tank at the Gasoline Dispensing Facility with a permanent submerged fill pipe and a Phase I vapor recovery system which has been certified by the California Air Resources Board. [District Rule 418]

~~43.36.~~ ~~AERA-Aera~~ Energy LLC shall limit emissions of volatile organic compounds by the use of architectural coatings which comply with the requirements of District Rule 426. [District Rule 426]

~~44.37.~~ ~~AERA-Aera~~ Energy LLC shall not operate any existing steam drive crude oil production well unless nonmethane hydrocarbon (volatile organic compound) emissions from the wellhead annulus valve are reduced by at least 98 percent by weight. [District Rule 427]

~~45.38.~~ Any new steam drive oil production well shall meet the requirements of condition number ~~44.37~~ within four months from the date that the well is defined as a steam drive well. [District Rule 427]

~~46.39.~~ ~~AERA-Aera~~ Energy LLC shall install and maintain all piping, valves, fittings, and equipment that are a part of the wellhead annulus valve and hydrocarbon control system for any steam drive crude oil well in a no-leak condition. A leak is defined as an emission of gaseous organic (volatile organic) compounds which causes an appropriate analyzer sampling one centimeter from a source to register as high or higher than it would register if sampling a gas composed of 15,000 ppm methane in air. [District Rule 427]

~~47.40.~~ ~~AERA-Aera~~ Energy LLC shall submit an Operator Management Plan to the Air Pollution Control Officer. This plan shall describe the procedures which AERA Energy LLC intends to follow to comply with the provisions of District Rule 427 and must include at least the following [District Rule 427]:

- a) detailed schedule of inspections, which provides for inspection of each affected component at least once per 12 month period, except that components with moving parts, including periodically manipulated valves, shall be inspected at least quarterly. The schedule shall indicate estimated inspection periods and frequency;
- b) identification of manipulated valves and components with moving parts, which will be inspected quarterly;
- c) repair procedures following leak detection;
- d) identification of critical process units which cannot be immediately shut down for repair of leaks;
- e) identification of any hazard(s) which might affect the safety of inspectors carrying out the provisions of District Rule 427; and
- f) identification of the resource commitment to the program to implement the Operator Management Plan.

Any modifications to an existing Operator Management Plan relating to changes in inspection or repair

procedures must be submitted for, and receive, approval of the Air Pollution Control Officer before they are implemented.

~~48.41.~~ ~~AERA-Aera~~ Energy LLC shall repair leaks on all piping, valves, fittings, and equipment that are a part of the wellhead annulus valve and hydrocarbon control system for any steam drive crude oil well within the following time frames [District Rule 427 Adopted 12/19/01]:

- a) Leaks exceeding 75,000 ppm shall be repaired to a leak-free condition within 15 working days, with monitoring via an appropriate analyzer to verify the leak-free condition as soon as practicable, but not later than 1 calendar month after the date on which the component is repaired.
- b) Leaks exceeding 15,000 ppm shall be repaired to a leak-free condition within 20 working days, with monitoring via an appropriate analyzer to verify the leak-free condition as soon as practicable, but not later than 1 calendar month after the date on which the component is repaired.

The Air Pollution Control Officer may grant a 10-day extension to the above repair time frames if the operator demonstrates an adequate necessity for the delay and that sufficient actions will be taken to correct the leak within this time period.

~~49.42.~~ The provisions of condition number ~~48.41~~ do not apply to a leaking component which is an essential part of a critical process unit identified in the approved Operator Management Plan, in which case repair shall be accomplished during the next shutdown or process turnaround of the critical process unit, but in no case more than three months from the date of detection. [District Rule 427]

~~50.43.~~ No more than 2 percent of the total number of steam drive crude oil production wells may contain an open ended line. [District Rule 427 Adopted 12/19/01]

~~51.44.~~ ~~AERA-Aera~~ Energy LLC shall limit emissions of volatile organic compounds during solvent cleaning and degreasing operations pursuant to the requirements of District Rule 433. [District Rule 433]

~~52.45.~~ ~~AERA-Aera~~ Energy LLC shall operate the dispenser at the Gasoline Dispensing Facility with a Phase II vapor recovery system which has been certified by the California Air Resources Board. [District Rule 1002]

~~53.46.~~ ~~AERA-Aera~~ Energy LLC shall comply with the requirements of Sections 61.145 through 61.147 of the National Emission Standard for Asbestos for all demolition and renovation projects. [40 CFR Part 61, Subpart M]

~~54.47.~~ Upon detection of an excursion as defined in condition number ~~82.74~~, AERA Energy LLC shall restore the emissions unit to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. [40 CFR Part 64]

~~55.48.~~ ~~AERA-Aera~~ Energy LLC shall submit a Compliance Assurance Monitoring Quality Improvement Plan (QIP) to the District as specified in 40 CFR '64.8 if the accumulation of excursions monitored under condition number ~~82-74~~ exceed 5 percent of the pollutant-specific emissions unit's operating time for a reporting period. [40 CFR Part 64]

~~56.49.~~ ~~AERA-Aera~~ Energy LLC shall comply with the requirements of 40 CFR Part 68 - Risk Management Plans. ~~AERA-Aera~~ Energy LLC shall submit a Risk Management Plan (RMP) if the facility becomes subject to the requirements of Part 68. [40 CFR Part 68]

~~57.50.~~ ~~AERA-Aera~~ Energy LLC shall comply with the requirements of 40 CFR Part 82 - Protection of Stratospheric Ozone. [40 CFR Part 82]

TESTING REQUIREMENTS AND PROCEDURES[tc \11 "TESTING REQUIREMENTS AND PROCEDURES]

~~58.51.~~ An annual performance test of each cogeneration facility shall be conducted during October of each year. ~~AERA-Aera~~ Energy LLC shall conduct performance tests in accordance with EPA Method 20 or CARB Method 100 for NO_x and O₂, EPA Method 10 or CARB Method 100 for CO, EPA Method 18 or CARB Method 100 for hydrocarbons, the collection method specified in BAAQMD Method 1B and the analysis specified in EPA Method 350.3 for ammonia to verify compliance with condition numbers 1, 2 and 3. ~~AERA-Aera~~ Energy LLC shall furnish the District written results of such performance tests within sixty (60) days of the test completion. A testing protocol shall be submitted to the District no later than 30 days prior to testing, and District notification at least 10 days prior to the actual date of testing shall be provided so that a District observer can be present. The compliance test shall include, but not be limited to, the determination of the following parameters [District Rule 207]:

- a) Oxides of Nitrogen, as NO₂: ppmv at 15% O₂, dry and lb/hr.
- b) Carbon Monoxide: ppmv at 15% O₂, dry and lb/hr.
- c) Ammonia: ppmv at 15% O₂, dry and lb/hr.
- d) Volatile Organic Compounds (VOC): ppmv and lb/hr.

and the following process parameters:

- e) Fuel(s) being fired, rate (SDCFM) and proportion of each.
- f) Electricity generated during the test.
- g) Ammonia injected in lb/hr, NH₃/Inlet NO_x mole ratio, and verification of ammonia slip calculation used in weekly calculation.
- h) Water injection rate and water to fuel ratio.

If the testing cannot be completed during the month of October and if ~~AERA-Aera~~ Energy LLC can

establish that the cogeneration facility was not operating for a period of time that could have allowed the testing to be completed, the testing can be delayed, such that it is conducted within thirty days from the date on which the turbine is restarted, and comply with the following notification requirements:

- A) ~~AERA~~ Aera Energy LLC must notify the District that they will be unable to meet the October testing requirement as soon as it becomes known, but in no event later than October 30.
- B) ~~AERA~~ Aera Energy LLC must provide the District with at least five days prior notification of the anticipated date the cogeneration facility will be restarted.
- C) ~~AERA~~ Aera Energy LLC must provide the District with the time and date of cogeneration facility startup within 24 hours after the actual startup.

~~59.52.~~ An annual performance test of each steam generator operated on natural gas and/or produced gas treated by the desulfurization plant during the year shall be conducted on or prior to January 1/December 31 of each year. ~~AERA~~ Aera Energy LLC shall conduct performance tests in accordance with EPA Method 7E or CARB Method 100 for NO_x, EPA Method 10 or CARB Method 100 for CO, EPA Method 3A or CARB Method 100 for O₂ to verify compliance with condition numbers 4-3 through 8-7. ~~AERA~~ Aera Energy LLC shall furnish the District written results of such performance tests within sixty (60) days of the test completion. A testing protocol shall be submitted to the District no later than 30 days prior to testing, and District notification at least 10 days prior to the actual date of testing shall be provided so that a District observer can be present. The compliance test shall include, but not be limited to, the determination of the following parameters [District Rule 207]:

- a) Carbon Monoxide: ppmv at 3% O₂, dry and lb/hr.
- b) Oxides of Nitrogen, as NO₂: ppmv at 3% O₂, dry and lb/hr.

and the following process parameter:

- c) Fuel(s) being fired, rate (SDCFM) and proportion of each.

~~60.53.~~ Performance tests of each operational steam generator with scrubber shall be conducted quarterly. ~~AERA~~ Aera Energy LLC shall conduct performance tests in accordance with EPA Method 20 or CARB Method 100 for SO₂, NO_x and O₂, EPA Method 10 or CARB Method 100 for CO, and EPA Method 18 or CARB Method 100 for hydrocarbons to verify compliance with condition numbers 9-8 through 15-13. ~~AERA~~ Aera Energy LLC shall furnish the District written results of such performance tests within sixty (60) days of the test completion. A testing protocol shall be submitted to the District no later than 30 days prior to testing, and District notification at least 10 days prior to the actual date of testing shall be provided so that a District observer can be present. The compliance test shall include, but not be limited to, the determination of the following parameters [District Rule 207]:

- a) Sulfur Dioxide: ppmv at 3% O₂, dry, lb_m/hr, and lb_m/MMCF.
- b) Oxides of Nitrogen, as NO₂: ppmv at 3% O₂, dry, lb_m/hr, and lb_m/MMCF.
- c) Carbon Monoxide: ppmv at 3% O₂, dry, lb_m/hr, and lb_m/MMCF.
- d) Total hydrocarbons and volatile organic compounds (VOC): ppmv, lb_m/hr, and lb_m/MMCF.

and the following process parameters:

- e) pH of the scrubber water feed and effluent, the scrubber water flow rate, and for Unit 30-9 only, the number of trays in the scrubber as tested.
- f) Fuel(s) being fired, rate (SDCFM) and proportion of each.

In the second and fourth calendar quarter each year, in addition to the tests specified above, testing shall be completed to determine the following exhaust parameters:

- g) Total Particulate: gr/sdcf, lb_m/hr, lb_m/MMCF, and PM₁₀ fraction.

The quarterly tests shall be conducted such that the exhaust parameters, as specified within this condition, are determined for steam generators 30-6 and 30-10A at least once per calendar year.

~~61. AERA Energy LLC shall conduct testing of the H₂S concentration downstream of the SulFerox Desulfurization Unit and Sulfatreat Vessels not less than once every 24 hours with the use of gas detector tube sampling as approved by the District to verify compliance with condition numbers 17 and 23. [District Rules 207 & 218]~~

~~62.54.~~ Testing shall be completed upstream and downstream of the Sulfatreat Vessels on an annual basis to determine the sulfur content and the higher heating value of the treated gas to verify compliance with condition number 2218. ~~AERA-Aera~~ Energy LLC shall conduct testing using a grab sample analysis by GC-FPD/TCD performed in the laboratory and in accordance with EPA Method 19. [District Rules 207 & 218]

~~63.55.~~ No testing is specified for the generic (Rule 400) opacity requirement from condition number ~~33-27~~ while firing on natural or produced gas. When firing on fuel oil continuously for a period of 120 hours and at intervals of seven (7) days during continuing operation on fuel oil, ~~AERA-Aera~~ Energy LLC shall conduct testing in accordance with the methodology contained in EPA Method 9 and the averaging/aggregating period contained in District Rule 400 to verify compliance with condition number ~~3327~~. [District Rule 218]

~~64.56.~~ No testing is specified for the (Rule 403) particulate matter emission standard from condition number ~~3428~~. The fuel burning equipment is assumed to be in compliance with the particulate matter emission standard based upon the engineering calculations contained in the evaluation report. If testing is conducted for condition number ~~3428~~, ~~AERA-Aera~~ Energy LLC should conduct testing in accordance with the methodology contained in EPA Method 5. [District Rule 218]

~~65.57.~~ No testing is specified for the (Rule 404) sulfur concentration limit in condition number ~~3529~~. The fuel burning equipment is assumed to be in compliance with this sulfur concentration limit based upon the engineering calculations contained in the evaluation report. If testing is conducted for condition number ~~3529~~, ~~AERA-Aera~~ Energy LLC should conduct testing in accordance with the methodology contained in EPA Method 6 or CARB Method 100. [District Rule 218]

~~66.58.~~ No testing is specified for the (Rule 404) NO_x (oxides of nitrogen) limit in condition numbers ~~36-30~~ and ~~37~~.

The fuel burning equipment is assumed to be in compliance with these NO_x limits based upon the engineering calculations contained in the evaluation report. If testing is conducted for conditions number 36-30 and 37, AERA-Aera Energy LLC should conduct testing in accordance with the methodology contained in EPA Method 7 or CARB Method 100. [District Rule 218]

~~67.59.~~ Testing of all fuel oil delivered to the facility shall be conducted prior to or upon receipt of the fuel oil, or in lieu of testing a manufacturers certification of the sulfur content of the fuel oil shall be supplied at the time of delivery. AERA-Aera Energy LLC shall conduct testing in accordance with ASTM D1552-83, ASTM D1266-87 or ASTM D2622-87 or shall receive certification as to the sulfur content of the fuel oil from the manufacturer to verify compliance with condition number 3831. AERA-Aera Energy LLC shall furnish the District the certification or written results of the test prior to firing the fuel oil, but in no case later than thirty (30) days of completion. [District Rule 218]

~~68.60.~~ An annual performance test of each steam generator firing produced gas which bypasses the desulfurization plant shall be conducted prior to January 1/December 31 of each year. AERA-Aera Energy LLC shall conduct performance tests in accordance with EPA Methods 2, 2A, 2C, or 2D for measuring flow rates and EPA Methods 18, 25, 25A, or 25B for measuring the total gaseous organic concentrations at the inlet and outlet of the control device to verify compliance with condition number 4437. AERA-Aera Energy LLC shall furnish the District written results of such performance tests within sixty (60) days of the test completion. A testing protocol shall be submitted to the District no later than 30 days prior to testing, and District notification at least 10 days prior to the actual date of testing shall be provided so that a District observer can be present. [District Rule 218, District Rule 427]

~~69.61.~~ Annual leak testing shall be conducted according to the schedule contained in the Operator Management Plan required in condition number 4740. AERA-Aera Energy LLC shall conduct testing in accordance with EPA Method 21 for Determination of Volatile Organic Compound Leaks to verify compliance with condition numbers 46-39 and 4841. [District Rule 427]

MONITORING AND RECORD KEEPING REQUIREMENTS[tc \11 "MONITORING AND RECORD KEEPING REQUIREMENTS]

~~70.~~ Continuous emission monitoring systems must be calibrated and operated to measure the cogeneration facilities exhaust stack for NO_x, CO and O₂. The system shall continuously record the NO_x and CO concentrations corrected to a value of 15 percent O₂, dry, and the NO_x and CO mass emission rates in pounds per hour and pounds per day. The system shall meet all the requirements of Rule 213 and shall be certified at least once per year. [District Rule 207; District Rule 213; 40 CFR Part 64]

~~Any breakdown of the CEM system shall be reported to the District within 1 hour of the occurrence, and the CEM defect shall be repaired within 96 hours or the monitored equipment shall be shut down until such repair is completed.~~

~~71.62.~~ The mole ratio of injected ammonia to the SCR inlet NO_x shall be recorded and the ammonia slip shall be calculated by a District approved method and recorded no less than once per seven (7) working days when the cogeneration facility is operating. If the cogeneration facility operates four (4) consecutive days but less than seven (7) the recording shall be made at least one time unless unscheduled maintenance prevents taking the reading and the District is notified within 5 days. The ammonia slip data used to determine slip

shall be maintained in a log and kept on site. [District Rule 207]

~~72.63.~~ A continuous monitoring system must be operated to monitor and record the fuel consumption and the mass ratio of water to fuel being fired in the cogeneration facilities' turbines on an average hourly basis. This data shall be maintained in a log and kept on site to calculate the mass ratio of water to fuel consumption on an average hourly basis as required by the District. This system must be accurate to within ± 5 percent. [District Rule 207; 40 CFR Part 60, Subpart GG]

~~73.64.~~ Instrumentation must be operated to measure the SCR catalyst inlet temperature and pressure differential across the SCR catalyst and to record the SCR catalyst inlet temperature on an average hourly basis. [District Rule 207 and 40 CFR 60, Subpart GG]

~~65.~~ A continuous monitoring system must be operated to monitor and record the NH₃ injection rate on an average hourly basis. [40 CFR 60, Subpart GG]

~~74.66.~~ AERA-Aera Energy LLC shall monitor and record all startup, shutdown, and operational profiles of the cogeneration facilities in a log maintained on site. [District Rule 207]

~~75.67.~~ Instrumentation shall continuously record the combustion temperature during flare operation. [District Rule 207]

~~76.~~ AERA Energy LLC shall maintain daily records of the quantity of produced gas which bypasses the Desulfurization plant and is combusted in each Steam Generator and the flare. [District Rule 207]

~~68.~~ Aera must monitor and repair all fugitive emissions components at well sites, as defined in Section §60.5430a, which are subject to the fugitive emissions requirements of Section §60.5397a. Fugitive emissions are defined as: any visible emission from a fugitive emissions component observed using optical gas imaging (OGI) or an instrument reading 500 ppm or greater using Method 21. Aera must meet the following requirements [40 CFR 60, Subpart OOOOa]:

a) Aera must develop a fugitives monitoring plan that incorporates the required elements of Section §60.5397a(a) and (c).

b) Aera must conduct an initial monitoring survey within 60 days of the startup of production for each collection of fugitive emissions components at a new well site or by June 3, 2017 whichever is later. For modified or reconstructed well sites, the initial monitoring survey must be conducted within 60 days of first day of production or by June 3, 2017 whichever is later.

c) A monitoring survey of each collection of fugitive emissions components at a well site within a company-defined area must be conducted at least semiannually after the initial survey. Consecutive semiannual monitoring surveys must be conducted at least four (4) months apart.

i) Fugitive emissions components that cannot be monitored without elevating the monitoring personnel more than two (2) meters above the surface may be designated as difficult-to-monitor. Difficult-to-monitor fugitive emissions components must be monitored at least once per calendar

year. The written fugitive emissions monitoring plan required by this condition must: identify these components, identify the location of each of these components and must include an explanation of why each designated component is difficult to monitor.

- ii) Fugitive emissions components that cannot be monitored because monitoring personnel would be exposed to immediate danger while conducting a monitoring survey may be designated as unsafe-to-monitor. The written fugitive emissions monitoring plan required by this condition must: identify these components, identify the location of each of these components, must include an explanation of why each designated component is unsafe to monitor and must include a schedule for monitoring the fugitive emissions at these sites.
- d) Each monitoring survey shall observe each fugitive emissions component, as defined in Section §60.5430a, for fugitive emissions.
- e) Aera must repair or replace each identified source of fugitive emissions as soon as practicable, but no later than 30 calendar days after detection of fugitive emissions. If the repair or replacement is technically infeasible, would require a vent blowdown, a well shutdown or well shut-in, or would be unsafe to repair during operation of the unit, the repair or replacement must be completed during the next well shutdown, well shut-in, after an unscheduled, planned or emergency vent blowdown or within two (2) years, whichever is earlier. Each repaired or replaced fugitive emissions component must be resurveyed as soon as practicable, but no later than 30 calendar days after being repaired, to ensure that there are no fugitive emissions.
 - i) For each repair that cannot be made during the monitoring survey when the fugitive emissions are initially found, the operator may resurvey the repaired components using either Method 21 or optical gas imaging within 30 calendar days of finding such fugitive emissions. Additionally, a digital photograph must be taken of that component or the component must be tagged for identification purposes. The digital photograph must include the date that the photograph was taken, must clearly identify the component by location within the site (e.g., the latitude and longitude of the component or by other descriptive landmarks visible in the picture).
 - ii) Operators that use Method 21 to resurvey the repaired fugitive emissions components must follow the written fugitive emissions monitoring plan required by this condition. A fugitive emissions component is repaired when the use of Method 21 instrument indicates a concentration of less than 500 ppm above background or when no soap bubbles are observed when the alternative screening procedures specified in section 8.3.3 of Method 21 are used.
 - iii) Operators that use the optical gas imaging to resurvey the repaired fugitive emissions components must follow the written fugitive emissions monitoring plan required by this condition. A fugitive emissions component is repaired when the use of the optical gas imaging instrument shows no indication of visible emissions.

77-69. AERA Energy LLC shall maintain records for each maintenance period which include time and date started and completed, as well as the amount of produced gas processed during the period. [District Rule 207]

78-70. AERA Energy LLC shall maintain daily records to document compliance with condition number 4434. [District Rule 416 Adopted 4/20/94]

~~79.71. AERA-Aera~~ Energy LLC shall maintain records showing the quantity of all gasoline delivered to the gasoline dispensing facility. [District Rule 418]

~~80.72. AERA-Aera~~ Energy LLC shall maintain a log covering at least the preceding 12-month period of all inspections performed to verify compliance with condition numbers ~~46-39~~ and ~~48-41~~. The log shall include inspection dates, components found leaking and emission levels (in ppm) and repair and verification dates. [District Rule 427]

~~81.73. AERA-Aera~~ Energy LLC shall maintain a monthly log of the facility-wide total volume of make-up solvent used, and waste solvent disposed of or recycled, for all cleaning devices using volatile organic compounds for solvent cleaning and degreasing. [District Rule 433]

The record keeping provisions of this condition do not apply to remote reservoir cold cleaners which are serviced by an independent contractor. For such remote cold cleaners, evidence of service shall be maintained.

~~82.74. AERA-Aera~~ Energy LLC shall maintain the following Compliance Assurance Monitoring (CAM) as specified below [40 CFR Part 64]:

- a) The pH of the scrubber water and the water recycle rate for the Scrubber serving Steam Generators 30-6 and 30-10A shall be monitored and recorded at least once per day on any day that the Scrubber is operating. Excursions from the monitoring parameters are defined as a pH of less than 6.6 and/or a water recycle rate of less than 700 gpm. A pH meter and a flow measuring device will be utilized for the monitoring.
- b) The recovery gas flow rate and the scrubber water inlet flow rate for the Scrubber serving Steam Generator 30-9 shall be monitored and recorded at least once per day on any day that the Scrubber is operating. A minimum ratio of these parameters will be established to assure that the effluent pH is at least 4.6. A performance test shall be conducted to verify compliance and to define excursions from the monitoring parameters and the monitoring methodology and shall be submitted to the District within 45 days of start-up of this equipment.

Within 30 days of completion of the performance testing, ~~AERA-Aera~~ Energy shall submit to the District an application for modification of the CAM parameters and methodology associated with the Scrubber serving Steam Generator 30-9.

- c) The control of produced gas shall be monitored and recorded at least once per day. An excursion shall be defined as any period of time that the recovery gas exceeds 30 psi at Gas Plant #2 after the inlet pressure regulators, when the SO₂ scrubber is operating. A pressure gauge will be used for the monitoring.

~~83.75. As applicable AERA-Aera~~ Energy LLC shall maintain the following general records of required monitoring information [District Rule 218]:

- a) the date and time of sampling or measurements;
- b) the date(s) analyses were performed;
- c) the company or entity that performed the analyses;

- d) the analytical techniques or methods used;
- e) the results of such analyses;
- f) the operating conditions existing at the time of sampling or measurement; and
- g) the records of quality assurance for continuous monitoring systems (including, but not limited to quality control activities, audits, and calibration drift checks) and source testing methods.

84.76. AERA Aera Energy LLC shall maintain records on the occurrence and duration of any startup, shutdown, or malfunction in the operation of the pollution control equipment under this permit. [District Rule 218]

85.77. AERA Aera Energy LLC shall retain records of all required monitoring data and support information as required by condition numbers 58-51 through 84-76 for a period of at least five (5) years from the date of the monitoring, sample collection, measurement, report, and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit pursuant to condition numbers 86-79 through 9384. [District Rule 218]

78. Aera shall maintain the following records for each collection of fugitive emissions components at a well [40 CFR 60, Subpart OOOOa]:

- a) The fugitive emissions monitoring plan, as required in Condition 68.
- b) The records of each monitoring survey including the following:
 - A. Date of survey.
 - B. Beginning and end time of the survey.
 - C. Name of operator(s) performing survey. You must note the training and experience of the operator.
 - D. Monitoring instrument used.
 - E. When optical gas imaging is used to perform the survey, one or more digital photographs or videos, captured from the optical gas imaging instrument used for conduct of monitoring, of each required monitoring survey being performed. The digital photograph must include the date the photograph was taken and the latitude and longitude of the collection of fugitive emissions components at a well site imbedded within or stored with the digital file. As an alternative to imbedded latitude and longitude within the digital file, the digital photograph or video may consist of an image of the monitoring survey being performed with a separately operating GPS device within the same digital picture or video, provided the latitude and longitude output of the GPS unit can be clearly read in the digital image.
 - F. Fugitive emissions component identification when Method 21 is used to perform the monitoring survey.
 - G. Ambient temperature, sky conditions, and maximum wind speed at the time of the survey.
 - H. Any deviations from the monitoring plan or a statement that there were no deviations from the monitoring plan.
 - I. Documentation of each fugitive emission, including the information listed below:
 - i. Location.
 - ii. Any deviations from the monitoring plan or a statement that there were no deviations from the monitoring plan.
 - iii. Number and type of components for which fugitive emissions were detected.

- iv. Number and type of difficult-to-monitor and unsafe-to-monitor fugitive emission components monitored.
- v. Instrument reading of each fugitive emissions component that requires repair when Method 21 is used for monitoring.
- vi. Number and type of fugitive emissions components that were not repaired as required in Condition 68(e).
- vii. Number and type of components that were tagged as a result of not being repaired during the monitoring survey when the fugitive emissions were initially found as required in Condition 68(e).
- viii. If a fugitive emissions component is not tagged, a digital photograph or video of each fugitive emissions component that could not be repaired during the monitoring survey when the fugitive emissions were initially found as required in Condition 68(e). The digital photograph or video must clearly identify the location of the component that must be repaired. Any digital photograph or video required under this paragraph can also be used to meet the requirements of this condition under (b)(E), as long as the photograph or video is taken with the optical gas imaging instrument, includes the date and the latitude and longitude are either imbedded or visible in the picture.
- ix. Repair methods applied in each attempt to repair the fugitive emissions components.
- x. Number and type of fugitive emission components placed on delay of repair and explanation for each delay of repair.
- xi. The date of successful repair of the fugitive emissions component.
- xii. Instrumentation used to resurvey a repaired fugitive emissions component that could not be repaired during the initial fugitive emissions finding.

REPORTING REQUIREMENTS[tc \11 "REPORTING REQUIREMENTS]

- 86.-----AERA Energy LLC shall submit to the Air Pollution Control District a written report each month on the cogeneration facilities which shall include [District Rule 207]:
- a)-----time intervals, date, and magnitude of excess emissions;
 - b)-----nature and cause of the excess emission, and corrective actions taken;
 - c)-----time and date of each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; and
 - d)-----a negative declaration when no excess emissions occurred.
- 87.-----AERA Energy LLC shall submit to the Air Pollution Control District a written report each month on the produced gas treated by the SulFerox Desulfurization Unit which shall include [District Rule 207]:
- a)-----average daily H₂S concentration, ppm;
 - b)-----average daily gas rate, MCFD; and

- e) ~~date, time, duration, maximum concentration, average concentration, and volume of gas for all periods during which the H₂S concentration exceeds the limit expressed in condition 17.~~

~~88.79.~~ ~~AERA-Aera~~ Energy LLC shall submit to the Air Pollution District by February 15, an annual report containing the annual fuel usage of all equipment under this permit; and the annual natural gas fuel consumption, annual electricity generated, and annual emissions of NO_x, CO, VOC, and ammonia from the cogeneration facility for the preceding calendar year. [District Rule 207]

~~89.80.~~ ~~AERA-Aera~~ Energy LLC shall report all breakdowns which result in the inability to comply with any emission standard or requirement contained on this permit to the Air Pollution Control Officer (APCO) within 1 hour of the occurrence; this one hour period may be extended up to six hours for good cause by the APCO. The APCO may elect to take no enforcement action if ~~AERA-Aera~~ Energy LLC demonstrates to the APCO's satisfaction that a breakdown condition exists.

The estimated time for repair of the breakdown shall be supplied to the APCO within 24 hours of the occurrence and a written report shall be supplied to the APCO within 5 days after the occurrence has been corrected. This report shall include at a minimum [District Rule 214]:

- a) a statement that the condition or failure has been corrected and the date of correction; and
- b) a description of the reasons for the occurrence; and
- c) a description of the corrective measures undertaken and/or to be undertaken to avoid such an occurrence in the future; and
- d) an estimate of the emissions caused by the condition or failure.

~~90.81.~~ ~~AERA-Aera~~ Energy LLC shall submit an annual report to the District by May 1 of each year which includes a tabulation of the record keeping required under condition number ~~80.72~~ and a schedule of repair for leaking components, and a currently updated version of the Operator Management Plan as required by District Rule 427 and condition number ~~4740~~. [District Rule 427]

~~91.82.~~ ~~AERA-Aera~~ Energy LLC shall submit quarterly reports to the District of all wells connected to a vapor recovery system. [District Rule 427]

~~92.83.~~ ~~AERA-Aera~~ Energy LLC shall submit quarterly reports to the District, in a District approved format, within 45 days from the end of the quarter and these shall include [District Rules 213 & 218]:

- a) the time intervals, date and magnitude of excess emissions, nature and cause of the excess (if known), corrective actions and preventative measures adopted; and
- b) the averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard for the pollutant in question; and

- ~~e) time and date of each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of system repairs and adjustments; and~~
- ~~d)c) all information pertaining to any monitoring as required by the permit; and~~
- ~~e)d) a negative declaration specifying when no excess emissions occurred; and~~
- ~~f)c) a summary of actual monthly emissions from the CEM for all equipment which operated during the quarter.~~

~~93.84.~~ AERA-Aera Energy LLC shall submit an annual compliance certification report to the District and U.S. EPA, in a District approved format, no later than February 15 for the period of January 1 through December 31 of the preceding year. [District Rule 218]

This report shall include a written statement from the responsible official which certifies the truth, accuracy, and completeness of the report and shall include at a minimum:

- a) identification of each term or condition of the permit that is the basis of the certification; and
- b) the compliance status; and
- c) whether compliance was continuous or intermittent; and
- d) the method(s) used for determining the compliance status of the source, currently and over the reporting period.

~~94.85.~~ For the collection of fugitive emissions components at each well site, Aera must submit to the District an annual report which includes the records of each monitoring survey conducted the preceding year, as required in Condition (reference monitoring condition #), no later than October 31. The annual report must include the information specified below. Submittal of an annual report to the US Environmental Protection Agency following 40 CFR 60.5420a satisfies the reporting requirements listed below [40 CFR 60, Subpart OOOOa]:

- a) The date of the survey.
- b) Beginning and end time of the survey.
- c) Name of operator(s) performing survey. If the survey is performed by optical gas imaging, you must note the training and experience of the operator.
- d) Ambient temperature, sky conditions, and maximum wind speed at the time of the survey.
- e) Monitoring instrument used.
- f) Any deviations from the monitoring plan or a statement that there were no deviations from the monitoring plan.
- g) Number and type of components for which fugitive emissions were detected.
- h) Number and type of fugitive emissions components that were not repaired as required in Condition 68(e).
- i) Number and type of difficult-to-monitor and unsafe-to-monitor fugitive emission components monitored.
- j) The date of successful repair of the fugitive emissions component.

- k) Number and type of fugitive emission components placed on delay of repair and explanation for each delay of repair.
- l) Type of instrument used to resurvey a repaired fugitive emissions component that could not be repaired during the initial fugitive emissions finding.

GENERAL CONDITIONS[tc \11 "GENERAL CONDITIONS]

95-86. ~~AERA-Aera~~ Energy LLC shall comply with all conditions of this federal operating permit. Any noncompliance with a permit condition constitutes a violation of the Federal Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [District Rule 218]

96-87. In an enforcement action, the fact that ~~AERA-Aera~~ Energy LLC would have to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit is not a defense. [District Rule 218]

97-88. This permit may be modified, revoked, reopened and reissued, or terminated for cause as determined by the District. The filing of a request by ~~AERA-Aera~~ Energy LLC for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 218]

98-89. This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. [District Rule 218]

99-90. ~~AERA-Aera~~ Energy LLC shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, ~~AERA-Aera~~ Energy LLC shall also furnish to the District copies of records required to be retained by this permit. [District Rule 218]

100-91. For applicable requirements that will become effective during the permit term, ~~AERA-Aera~~ Energy LLC shall meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement. [District Rule 218]

101-92. Any document submitted to the District pursuant to this permit shall contain certification by the responsible official of truth, accuracy and completeness. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. ~~AERA-Aera~~ Energy LLC shall promptly, upon discovery, report to the District a material error or omission in these records, reports, plans, or other documents. [District Rule 218]

102-93. ~~AERA-Aera~~ Energy LLC shall report any violation of any requirement contained in this permit to the

District within 96 hours after such occurrence. The violation report shall include the time intervals, date and magnitude of excess emissions; nature and cause of the excess (if known), corrective actions and preventive measures adopted. [District Rule 218]

~~103-94.~~ Upon any administrative or judicial challenge, all the emission limits, specific and general conditions, monitoring, record keeping, and reporting requirements of this permit, except those being challenged, remain valid and must be complied with. [District Rule 218]

~~104-95.~~ For this federal operating permit to remain valid through the permit term of five years from the date of issuance, ~~AERA-Aera~~ Energy LLC shall pay an annual emission fee based upon the requirements of District Rule 308. [District Rule 218]

~~105-96.~~ ~~AERA-Aera~~ Energy LLC shall have available at the facility at all times a copy of this federal operating permit. [District Rule 218]

~~106-97.~~ For protection from enforcement action based upon an emergency, as defined in District Rule 218, the responsible official for ~~AERA-Aera~~ Energy LLC shall submit to the District relevant evidence which demonstrates [District Rule 218]:

- a) an emergency occurred; and
- b) that ~~AERA-Aera~~ Energy LLC can identify the cause(s) of the emergency; and
- c) that the facility was being properly operated at the time of the emergency; and
- d) that all steps were taken to minimize the emissions resulting from the emergency; and
- e) within two working days of the emergency event, ~~AERA-Aera~~ Energy LLC provided the District with a description of the emergency and any mitigating or corrective actions taken.

~~107-98.~~ Upon presentation of credentials, ~~AERA-Aera~~ Energy LLC shall allow the District, the ARB, the EPA, or an authorized representative, to perform the following [District Rule 218]:

- a) enter upon the premises where the federal operating permit source is located or in which any records are required to be kept under the terms and conditions of this federal operating permit;
- b) to have access to and copy any records required to be kept under the terms and conditions of this federal operating permit;
- c) to inspect any equipment, operation, or process described or required in this federal operating permit; and,
- d) to sample emissions from the source.

~~99.~~ The renewal application for this permit shall be submitted at least 6 months but no greater than 18 months prior to permit expiration. [District Rule 218]

Proposed Title V Permit: ~~TV66-01~~TV-0000007
Proposed Expiration Date: ~~10/31/17~~ To Be Determined
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